

NORTHEASTERN FOREST PEST REPORTER

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This number of the NORTHEASTERN FOREST PEST REPORTER initiates an avenue for information that will reflect the interest, desires, and needs of all those persons and agencies in the region that are concerned with the protection of our forest resources. The losses from insects and diseases in this region are not spectacular, but they are nonetheless significant. The timely interchange of information on the current status of important pests and their control is a vital phase of the cooperative program against these pests, and is important to the field man as well as to the administrator. It is hoped that this periodic summary of forest insect and disease conditions in all parts of the region, based upon reports from the field men, will stimulate interest and cooperation in our mutual problems. Suggestions for improving this REPORTER in contents or format will be appreciated. Insects and diseases attacking shade and ornamental trees will not be reported, unless their presence is considered to be a menace to forest or plantation trees.

FOREST INSECTS

Spruce budworm

Spruce budworm larval surveys in northern Maine have revealed higher numbers than in 1955 at all points visited so far. These findings are in line with the prediction based on last year's egg mass survey that there would be an increase in both numbers and area of infestation in 1956. Medium populations are now present in many locations which have had negligible numbers of budworms previously. The larval surveys are not yet completed. A 12 to 15-fold increase in larval population occurred in Washington and Hancock Counties and a 2 to 3-fold increase in western Maine from Moosehead to Rangeley Lakes. Populations in these areas are

still below the defoliating level but the marked increase in budworm population is significant. An aerial survey will be conducted in July by personnel from the Beltsville Forest Insect Laboratory, the Northeastern Forest Experiment Station and the Maine Forest Service to map the area of noticeable defoliation.

Gypsy moth

Approximately one-third (10 million acres) of the total land area of New York State is now infested with the gypsy moth to some degree. Much of this area has become infested from spread occurring during the past two years. In an effort to prevent further spread the Plant Pest Control Branch, Agricultural Research Service, U.S.D.A. has recently completed aerial spraying with DDT of about 600,000 acres in a strip averaging about 60 miles long and 20 miles wide along the southwestern edge of the known infested area. The sprayed area extends on either side of the New Jersey, Pennsylvania and New York State boundaries. In addition, the Federal Government sprayed about 36,000 acres of heavily infested woodland in Saratoga County, New York.

New York State sprayed a total of 84,000 acres this year in areas from Columbia County to the Canadian border to prevent heavy buildup in highly susceptible stands. The States of Massachusetts, Connecticut, Vermont and Maine all sprayed some woodlands to prevent defoliation. The general infestation over most of New England is at a low ebb.

Shoot and tip moths

A reconnaissance survey was conducted in May by personnel from the West Virginia State Entomologist's office, the Monongahela National Forest, and the Northeastern Forest Experiment Station to determine the status of the European pine shoot moth and the Nantucket pine moth in red pine plantations in West Virginia. Light infestations of the shoot moth were found in a National Forest plantation on Backbone Mountain and in private plantations in Tucker County and Wetzel County. A heavy infestation was found in a Christmas tree plantation near Reedsville in Preston County. All of these counties are in the northern part of the State.

Light to medium infestations of the Nantucket pine moth were found over a much more extensive area in the State.

Extensive shoot moth damage is occurring in red pine plantations in southern New York and some damage in scattered plantations as far north as the Mohawk River. New York State is engaged in airplane spraying experiments for shoot moth control.

Severe damage to loblolly pine plantations in Delaware is resulting from Nantucket pine moth attack.

Forest tent caterpillar

The heavy infestations of the past few years in New York and New England have subsided. No defoliation was reported in 1956.

Cankerworms

An aerial survey conducted by the Beltsville Forest Insect Laboratory revealed heavy defoliation of hardwoods by the fall cankerworm (Alsophila pometaria) on approximately 600 acres on Sugarloaf Mountain in Maryland. Cankerworm outbreaks were also reported from scattered localities in Pennsylvania, New Jersey, Connecticut, and Maine.

Pine sawflies

Several species of pine sawflies were abundant in different parts of the region in May and June.

An aerial sketch map survey conducted by the Beltsville Forest Insect Laboratory indicated that heavy defoliation of Virginia pine by Neodiprion pratti pratti still exists in the Patuxent River watershed area from Laurel to Ridgeville, Maryland. The intensity of attack is approximately the same as last year but apparently the periphery of the infestation has expanded beyond the limits observed in 1955. Some 2000 acres are involved. Sawfly damage has also been reported from southern Maryland and the Eastern shore.

A serious outbreak of Neodiprion nanulus occurred in red pine plantations in St. Lawrence County, New York. This sawfly has been present in this area since 1945. The first indication of a marked increase occurred in 1954 and this was followed by a rapid buildup in several plantations in 1955. During the latter part of May, 1,230 acres were sprayed by a New York State Conservation Department airplane with DDT at the rate of 1 pound of DDT in 1 gallon of spray per acre. Preliminary checks show good control on most of the sprayed area.

A heavy infestation of the European pine sawfly (Neodiprion sertifer), involving about 100 acres occurred on red pine watershed plantations near a reservoir in Stamford, Connecticut in 1955. This year some 200 acres were infested and the area was sprayed with a suspension of virus polyhedra applied by helicopter at a rate of 2 gallons per acre. Control was nearly complete.

A sawfly, identified as Neodiprion dyari, caused extensive defoliation of pitch pine in southeastern Burlington County and west-central Ocean County, New Jersey. This sawfly has been causing sporadic damage in this general area for some 25 years but has never caused the extensive damage which is evident this year.

White pine weevil

Previous experiments in airplane spraying for control of the white pine weevil have indicated a high degree of control with four pounds of DDT in four gallons of spray solution per acre. On April 26 a 28-acre white pine plantation in New York forest district No. 3 was sprayed with this dosage. Preliminary checks indicate excellent control. The ground-work is being laid for a pilot plant test in 1947 involving the spraying of 1500 to 2000 acres in New York forest district No. 4. This test will be conducted cooperatively by the New York Conservation Department and the U. S. Forest Service.

Ips in red pine plantations

Outbreaks of Ips pini in red pine plantations have been reported from several locations in New York and Massachusetts.

A particularly serious situation exists in plantations on the Quabbin Reservoir in Massachusetts where an aerial survey revealed 15 groups of dead or dying red pines all heavily infested with Ips. It is possible that some other factor, possibly drought, initially weakened the trees and touched off the Ips outbreaks.

Pine leaf aphid

Severe kill of last year's growth on white pine in New York, Maine, Vermont, and Massachusetts resulted from attack by the pine leaf aphid (Pineus pinifoliae). Heavy infestations in New York during the past two years have resulted in some tree mortality. In Maine the infestation is particularly severe in the eastern part of the State and from Moosehead Lake to Bingham.

Matsucoccus scale on red pine

Heavy infestations of Matsucoccus resinosae persist in the Bridgeport, Connecticut, area and in Westchester County and on Long Island in New York.

General

H. B. Peirson, State Entomologist in Maine, retired on April 6 after 35 years of service. Robley W. Nash succeeds him.

FOREST DISEASES

White pine blister rust

Blister rust infection is generally distributed throughout New York State. Heaviest infection is occurring in the Adirondack and Catskill regions where temperature and moisture conditions are more favorable for spore dissemination. Reports from all districts indicate that pine cut-over areas, where pine and ribes come back together, are a serious factor in the control program. Very heavy infection is found on many of these areas, particularly when control work is delayed five or more years after the cutting operation. Aecial production on infected pines has been the heaviest reported for many years. Infection on ribes has been late in appearing, due to the late season.

Dieback

On aspen. Dieback and leaf spot of aspen, caused by Napicladium tremulae, has occurred in scattered areas in Maine, Massachusetts, and New York. Terminal twigs and shoots wilt, become blackened and hook-shaped. Conspicuous brown leaf spots are abundant. Only young tender shoots are infected, and the disease has caused no serious injury.

On birch. The trouble is present throughout New York State although the intensity of infection is light. Some mortality has been reported.

On ash. Dieback continues to show evidence of causing some mortality in New York State.

On beech. A dieback of small twigs scattered through the crowns of large trees in Maine has been under observation. The cause has not yet been determined. The leaves on a twig turn brown in late summer and the twig dies back to a fork. The twig adjoining at the fork remains healthy. On some of the affected trees, beech-scale-Nectria is present, also small trunk cankers of unknown origin. In the cankered areas the bark is roughened and gradually sloughs off, exposing the wood. There seems to be no correlation between the dieback and the cankers.

Beech Nectria

A Nectria on beech, from a collection made at the Fernow Experimental Forest, Parsons, West Virginia, has been identified as N. coccinea var. faginata. This is the organism that is associated with the beech scale in New England. The Nectria has not been reported previously outside the New England-New York area. If the beech scale now makes its appearance in the West Virginia area, considerable mortality of beech should be expected.

Oak wilt

In New York, no known areas of infection have been found. An aerial survey will be conducted in early August in the counties adjacent to the Pennsylvania border. All suspicious dying oaks will be reported to ground crews who will follow up with a ground inspection. Aerial surveys are being planned also in Pennsylvania and West Virginia.

Oak mortality

Continuing mortality of oaks has occurred in the vicinity of Salamanca and Warrensburg, New York, as well as in various other areas of New York and Pennsylvania. Isolations from the trees have proved that it is not caused by oak wilt. The problem is now under investigation by the U.S. Forest Service in cooperation with State agencies in New York and Pennsylvania.

Cytospora canker of spruce

Considerable infection in Norway spruce plantations on the Ashokan Reservoir in Ulster County of New York has resulted in heavy mortality during the past few years. The extremely dry season last year apparently reduced the vigor of cankers on infected living trees.

Tympanis canker

In New York the canker is reported to be present in varying degrees of intensity in many of the red pine plantations on state reforestation areas in the southern tier of counties. It is serious from the standpoint of defective wood in the large cankered areas on the trees.

Root rot

Rot caused by Fomes annosus has been found in two widely scattered red pine plantations in New York, one in Dutchess County and the other in Cayuga County. All reports of dying red pines are being investigated. Rot occurred also on stumps of commercially thinned red pine in a plantation in Connecticut. Experimental tests on controlling the rot are being conducted by the U.S. Forest Service.

Rot of yellow-poplar nursery stock has been reported from West Virginia. Cylindrocladium scoparium has been isolated from root lesions. The same disease has occurred on this host in nurseries in North Carolina and Washington, D.C. Some years ago it was reported on yellow-poplar seedlings in a New Jersey nursery. It has previously been reported as causing damping-off and root-rot of nursery stock of hemlock, pine,

larch, spruce, and Douglas-fir, in Connecticut, New Jersey, Delaware, and Pennsylvania.

Frost injury

In some areas of Maine, New Hampshire, and Vermont, a conspicuous wilting and drooping of all leaves on beech trees has resulted from late frosts. Not only seedlings and saplings, but older trees also were affected. Oak also was affected in Maine. Probably some dieback and killing will occur, but the extent of the injury is not yet evident. Similar frost injury has been reported on beech and oak in Pennsylvania.

Winter burn

Heavy winter burn of pines is very noticeable in many areas in New York State. Salt spray burn on pines is also prevalent along highways.

Pitch flow on pines

A streaky pitch flow has been noted on white pines during the past two years in many scattered areas in New York State. Although found on trees in unpruned stands it appears to be more prevalent in pruned areas. The cause is undetermined but it appears to be reducing tree growth considerably.